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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Global artificial boundary conditions of second order elliptic differential equations -- Global artificial boundary conditions of Navie Equations and Stokes Equations -- Global artificial boundary conditions of heat equation and Schrodinger Equation -- Fully absorbing boundary conditions of wave equations, Klein-Gordan Equation and linear KdV Equation -- Discrete artificial boundary conditions -- Local artificial boundary conditions -- Implicit artificial boundary conditions -- Nonlinear artificial boundary conditions -- Applications.
Sommario/riassunto	"Artificial Boundary Method" systematically introduces the artificial boundary method for the numerical solutions of partial differential equations in unbounded domains. Detailed discussions treat different types of problems, including Laplace, Helmholtz, heat, Schrodinger, and Navier and Stokes equations. Both numerical methods and error analysis are discussed. The book is intended for researchers working in the fields of computational mathematics and mechanical engineering. Prof. Houde Han works at Tsinghua University, China; Prof. Xiaonan Wu works at Hong Kong Baptist University, China.